



# Inpatient Strokes

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Stroke CNS

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# Inpatient characteristics

Special characteristics make this group more susceptible to a higher incident risk of stroke and poorer outcomes compared with patients arriving from outside the hospital.

- For example, in-hospital stroke patients are usually older, have higher prevalence of comorbid conditions
- Many occur during the perioperative period, often among patients undergoing cardiac procedures.
- Others occur on cardiology, general medicine, or surgical wards while receiving care for other medical conditions requiring hospitalization.

# Inpatient stroke –poorer outcomes

Identified causes include

- lack of education about identifying stroke on inpatient wards
- Delayed notification of most appropriate personnel
- Poor communication about need urgent medical evaluation
- Time is brain

# Action plan

- New onset arm /leg weakness on one side
- New difficulty speaking
- New facial weakness
- Determine time patient last seen normal or time of witnessed stroke
- Time is crucial –contact Reg on team (5minutes)
- Contact stroke team via switch

# Action plan

- Bedrest
- GCS
- Blood glucose
- Oxygen =keep sats above 95%
- ECG ( have old one for comparison if available )
- Place on cardiac monitor
- Nil by mouth
- Weight if recorded
- Prepare for iv access x 2 , urinary cathether
- Transfer to CT -to include portable oxygen and suction with Team to immediately order CT with angio if case sounds appropriate
- Ask are family around particularly in the setting of aphasia

# GLASGOW COMA SCALE

NOT ENTIRELY SENSITIVE FOR STROKE

- Speech
- Eyesight

# Factors lead to delayed recognition or assessment of Inpatient Stroke

Factors suggested as leading to delays include

- Neurological deficits may be attributed to other general medical conditions;
- medication effects;
- delirium,
- lack of education on stroke signs, the short time window for thrombolysis,
- lack of a dedicated protocol for triaging acute stroke in hospitalized patients

# Inpatient v Outpatient Stroke

One study demonstrated that compared with out-of-hospital strokes, patients with in-hospital strokes showed

- longer times to neuroimaging,
- lower rates of thrombolysis,
- greater poststroke disability.
- in-hospital strokes are less likely to meet various quality-of-care metrics

Cumblor E, Murphy P, Jones WJ, Wald HL, Kutner JS, Smith DB. Quality of care for in-hospital stroke: analysis of a statewide registry. *Stroke*. 2011;42:207–210. doi: 10.1161/STROKEAHA.110.590265



# Educational intervention

learning objectives of the educational intervention included the following:

- Describe the different types of strokes,
- Recognize the common signs and symptoms of an acute stroke,
- Understand why acute stroke is an emergency,
- Awareness of the treatment options for an acute stroke,
- Describe the role of different medical team members in activating a code stroke,
- Describe the procedure for activating a code stroke for an inpatient.
- Physicians can fail to consider interventions for stroke eg Thrombolysis due to recent surgery ,GI bleeding but these patients may be suitable for Thrombectomy.